(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 April 2002 (25.04.2002)

PCT

(10) International Publication Number
WO 02/33272 A1

(51) International Patent Classification[7]: F16B 12/32, 7/04, A47B 83/00, 96/14

(21) International Application Number: PCT/IB01/01958

(22) International Filing Date: 17 October 2001 (17.10.2001)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
BO2000A000610 19 October 2000 (19.10.2000) IT

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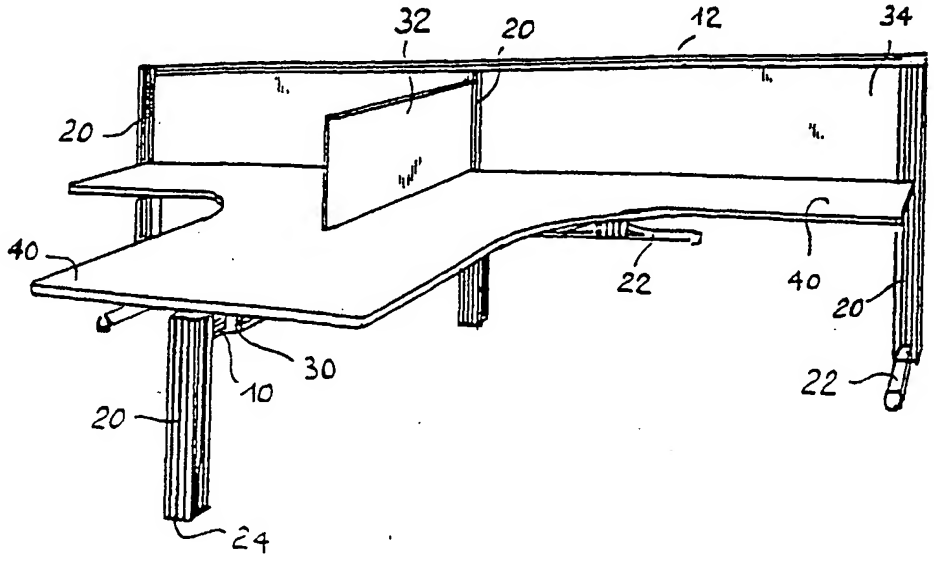
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

[Continued on next page]

(54) Title: A LOAD-BEARING BAR STRUCTURE FOR A FITMENT SYSTEM AND RELATIVE LOAD-BEARING BAR ELEMENT



(57) Abstract: A load-bearing bar structure for a fitment system comprises a plurality of load-bearing elements (10, 20) and coupling devices (110, 113, 115) such that two or more of said load-bearing elements (10, 20), elongated in a preferential direction, can be mutually connected at any point along their said preferential direction. The invention also relates to a fitment system comprising independent work stations that can be selectively brought, in use, alongside said fitment structure to modify the configuration of the fitment system itself.

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A LOAD-BEARING BAR STRUCTURE FOR A FITMENT SYSTEM AND RELATIVE LOAD-BEARING BAR ELEMENT

The present invention relates to a load-bearing bar structure for a fitment system and relative load-bearing bar element, in particular, but not by way of limitation, for offices.

Numerous fitment systems are known which use modular elements variously disposed and combined with one another to create or modify fitment configurations according to the environment in which they are positioned.

Some of these solutions are known from patent documents of the same Applicant, in which modular type fitment systems comprise, as principal element of development, a load-bearing frame structure or, alternatively, a work surface.

The solution proposed in patent application WO 98/16136 of the same Applicant, for example, proposes a system centred and developed on work surfaces supported by a plurality of legs, and is characterised in that said work surfaces comprise a plurality of support plates fixed in predetermined positions for connection to further work surfaces and structural fitment elements.

Although such fitment systems have proved to be very effective in use for solving problems linked to the optimisation of work spaces, and extremely easy to install and to modify their configuration, at the same time they have also allowed further ways of development in the field of fitment systems to be highlighted.

Each of the fitment systems of known type is characterised by the need to position in the work environment an element, whether a load-bearing frame or a work surface, using it as a point of origin for the development of the system itself. Said element, on which a work station is produced, is similar to a fixed node of

a fitment network which should, instead, be capable of being developed and modified in a dynamic manner. In such a configuration, the positioning of a new work station of a fitment network must consequently start from the connection of a new node to said point of origin and successive accesses to the network must occur at one of the pre-existing points, forcing the fitment network to grow in a progressive sequential manner.

A similar mode of development of the fitment system is also rendered necessary by the requirement to connect the new work stations to the system for channelling the electrical and data connections present only at the pre-existing nodes of the fitment structure.

Moreover, the dimensions of the original structures, frames or work surfaces, may lead to organising the surrounding spaces available by fixing uniformly the positioning of the nodes of the fitment network and forcing the development thereof.

All these characteristics, in a method for optimisation of space in a work environment include the risk of leaving wide areas unused, in so far as they cannot be reached from a fitment network in an advanced stage of development, or oblige the entire positioning of a pre-existing network to be modified.

It is an aim of the present invention to provide an answer to the requirements highlighted above, overcoming the limitations of the modular fitment systems of known type, by proposing a load-bearing structure for a fitment system without points of origin or pre-fixed access nodes.

Another of the principal aims of the present invention is that of providing a fitment structure which comprises numerous fitment solutions, that is to say, from independent work stations to complex box-type

structures, always using a single typology of load-bearing element.

Another aim of the present invention is that of providing a fitment system which centres its modularity and its flexibility of development on a single load-bearing structure usable, at any point thereof, for the creation of work islands.

A further aim of the present invention is that of also assimilating with the single load-bearing structure the channelling of electric cables or of the cabled data network, so as to make the connection of new work islands to said channelling system independent of the development of the structure of the system.

An additional aim of the present invention is that of providing a dynamic fitment system which comprises independent work stations selectively connectable to the load-bearing structure.

For the purpose of fulfilling the aforesaid aims, the subject of the invention is a load-bearing bar structure for a fitment system comprising a plurality of load-bearing elements and coupling devices, characterised in that two or more of said load-bearing elements, elongated in a preferential direction, are mutually connected at any point along their said preferential direction. The invention also has as its subject a load-bearing bar element, a coupling device and a fitment system as a whole.

One of the principal advantages of the present invention consists in the possibility of easily connecting several load-bearing elements to one another at variable angles and points of connection, so as to create a single continuous line of load-bearing elements comprising electrical and data channelling system.

A further advantage of the present invention consists in the ease of access and management of the electrical and data channelling means.

A further advantage consists in the possibility of connecting independent fitment elements freely along the full extent of the load-bearing elements.

Further characteristics and advantages of the invention will become clear from the following detailed description of a preferred embodiment, with reference to the appended drawings provided purely by way of non-limiting example, in which:

Figure 1 is a perspective view of an example of a fitment structure according to the present invention;

Figures 2a and 2b are partial perspective views of further embodiments of fitment structures;

Figure 3 is a perspective view of a detail of the connection between several load-bearing elements;

Figure 4 is a sectional view of an end of a load-bearing element;

Figure 5 is a front view of the end in Figure 4;

Figures 6 and 7 are perspective views of a fitment structure of the "box" type according to the present invention;

Figures 8 to 10 are perspective views of electric and/or data cable collection and channelling means;

Figure 11a is a plan view of an embodiment of a fitment system produced by means of the load-bearing structure of the present invention;

Figure 11b is a perspective view of the embodiment in Figure 4a;

Figure 12 is a perspective view of an embodiment of an independent work station according to the present invention;

Figure 13 is a perspective view of a detail of a fitment system comprising independent work stations; and

Figure 14 is a perspective view of a further fitment structure according to the present invention.

With reference now to the drawings, a load-bearing bar structure for a fitment system comprises a plurality of load-bearing elements substantially equal to one another, for example, but not by way of limitation, parallelepipedal in shape, elongated in a preferential direction, so as to be comparable to the shape of a bar. For clearer understanding of the description which follows, the bar of the fitment system according to the present invention will be indicated by the term horizontal bar, if used disposed parallel with respect to a floor surface, or by the term vertical bar, if disposed generally orthogonally with respect to said floor surface. Such distinction in terminology, which is used for the sake of clarity, also helps to indicate that fitment elements with the same technical and constructional characteristics may be used for different functions.

As illustrated in detail hereinafter, the peripheral wall of the bar comprises a plurality of lateral appendages or ribs and corner appendages or ribs which, as a whole, define peripheral walls of the bar interrupted by a plurality of parallel longitudinal grooves. The bar further comprises coupling devices mounted, for example, at one end thereof, which can engage with the lateral ribs of another bar and allow the mutual sliding connection of the horizontal and vertical bars. Support means, for example brackets, arms, stirrups or any other element suitable for supporting a work surface or other fitment complements also comprise the same coupling device so as to be able to be slidably connected to a horizontal or vertical bar. In the case of vertical bars, foot members, used to improve the stability of the structure, may be connected to the end

of a bar by means of the same coupling device mentioned above.

In the example of Figure 1, four horizontal bars 10 are each connected to a common vertical bar 20 on one side, and to respective vertical bars 20 on the other side, so as to produce a four-leaved structure with four different work stations. On the horizontal bars 10 are slidably connected brackets 30 which support respective work surfaces 40. Between the upper peripheral wall of the horizontal bars 10 and the peripheral side wall of the vertical bars 20 are connected panel elements such as, for example, separating screens 32 and divider panels 34, to create a protective riser on each work surface 40. On the upper portion of the divider panels 34 is connected a horizontal bar of reduced height 12, used both as fitment finishing piece and as a connection means for further divider panels or other fitment complements. To increase the vertical stability of the structure, each vertical bar 20 comprises, in its lower portion, detachably connected foot members 22,24.

The shape and dimensions of the screens 32 and/or of the panels 34 may of course vary widely with respect to what has been illustrated in the appended drawings, so that the aims and advantages of the present invention may be achieved. For example, the panel elements, connected to a bar by means of the grooves of their peripheral portion, may be blank or with glazing, used singly, at the central groove, or in pairs, at the two outer grooves, partially covering the bar or in line with its lateral peripheral portion.

Figures 2a, 2b illustrate portions of walls produced with the system of the present invention fitted in a different manner. The horizontal bars 10 are connected at their ends to vertical bars 20, and between these are engaged some divider panels 34 so as to provide a fitment

wall. The panels are, for example, but not by way of limitation, made of wood, as in Figure 2a, or of metallic material covered with fabric, as in Figure 2b, and are connected to one another by means of further horizontal bars of reduced height 12. To the horizontal bars 10 are slidably connected support brackets 30 on which are engaged work surfaces 40, on which, in their turn, are provided separating screens 32. On one side of the structure, to the vertical bar 20 there is connected a blind element 36, also used for dividing and furnishing purposes. In Figure 2a, on the opposite side from the blind element 36, is slidably connected a further horizontal bar 10 on which is slidably connected one of the support brackets 30 for supporting the work surface 40.

One of the advantages of the embodiment illustrated in Figure 2a is that of being able to modify the dimensions of the work surface 40, for example reducing it or sub-dividing said surface 40 into several separate work surfaces, simply by moving the horizontal lateral bar 10 to provide, in a rapid and effective manner, the necessary support brackets 30, without modifying either the structure or the dimensions of the fitted wall.

In a particular embodiment, the divider elements 34, 36 mentioned above are not connected directly to a fitment structure but may be selectively brought alongside the load-bearing elements 10, 20 so as to be used independently of the load-bearing structure, and to be used either with single work stations or in sliding engagement with the load-bearing structure, in order to vary the configuration and the space of the work areas that can be defined on the entire load-bearing structure.

Figure 3 illustrates another detail of a wall fitted according to the present invention, wherein there are slidably connected to a vertical bar 20 two horizontal

bars 10, between which there are divider panels 34. To one of the horizontal bars 10 there is slidably connected a further horizontal bar 10, on the longitudinal grooves 105 of the peripheral wall of which are slidably engaged two brackets 30. One of the two brackets 30 supports a work surface 40, together with other brackets which are not shown. In this example also, the position of connection of the horizontal bars 10 to the vertical bar 20, of the mutual connection of the two horizontal bars, and of the connection of the brackets 30 are given purely by way of example and, as described hereinafter, are easily modifiable owing to a slidable connection between the individual elements.

As can be seen in particular in Figure 4, the bar of the fitment system according to the present invention substantially has a cross-section with a quadrangular tubular core, and, in particular, square for the bars of full height. From the quadrangular core 101 extend a plurality of lateral appendages or ribs 102 and corner appendages or ribs 103, which, as a whole, define peripheral walls 104 of the bar interrupted by a plurality of parallel longitudinal grooves 105, preferably three in number per side in the full height bar, on the major side of the reduced height bar, and two in number on the short side of the reduced height bar. Each groove 105 comprises a base wall 106 and two lateral walls 107 which, in proximity to the opening 108 of the groove 105 at the walls 104 have a pair of projections 109. The projections 109 define a constriction of the groove 105 at the opening 108, with respect to the width of the inner fin defined by the lateral walls 107.

The coupling device of the present invention, which may be mounted both at the end of a bar, as illustrated in Figure 4, or on a support bracket 30 as illustrated in Figure 5, comprises a containment body 110 with an end

cavity 111, having two opposed walls 112 inclined so as to diverge towards the end of the containment body 110 with respect to each other. In the cavity 111 are housed two jaws 113 pivotally articulated by means of a pin 114 or the like in proximity to the base of the cavity 111 and each terminating in an elongate tooth 115 intended, in the mounted configuration illustrated in Figure 4, to hook onto a respective projection 109 of two grooves 105. Each jaw 113 is normally maintained alongside a respective lateral wall 112 of the cavity 111 by means of resilient means, in particular one or more springs 116; interposed between the pair of jaws 113 there is also interposed a clamping device, in particular a wedge 117 having at least two lateral walls 118 inclined at the same angle of inclination as the corresponding walls 119 of the jaws on which the wedge 117 bears with sliding freedom. Into a central threaded hole 120 of the wedge is screwed an operating screw 121 the head 122 of which is accessible through an opening 123 provided in the containment body 110.

To hook on a bar, a bracket or an element provided with the locking system illustrated in Figures 4 and 5, it is sufficient to loosen the operating screw 121 far enough for the wedge 117 to move away from the jaws 113, allowing them to approach one another, opposing the action of the spring 116, enough to insert the teeth 115 inside two grooves 105, passing over the projections 109 at the openings 108 of the grooves themselves. The insertion of the jaws inside the grooves is facilitated by the rounded end shape of the ends themselves.

It is then possible to position the bar, the stirrup or the element provided with the connecting device in the desired position by sliding it along the longitudinal grooves 105 provided on the load-bearing bar. This manoeuvre is facilitated by the fact that the spring 116

holds the jaws 113 open without, however, locking them on the load-bearing bar. Once the desired position is reached, it is sufficient to act on the head 122 of the operating screw 121 to force the wedge 117 against the walls 119 of the jaws, forcing them definitively to open and thus locking the connecting device on the load-bearing bar. Preferably, a centring member, for example a pin or key 124, is pre-arranged in a central position with respect to the two jaws 113 and projects from the end of the connecting device so as to engage a central groove 105 with respect to the grooves occupied by the teeth 115. Said centring device facilitates both the placing of the connecting device on the load-bearing bar and its slidable positioning in a longitudinal direction, and finally the overall mechanical strength of the joint with respect to the stresses to which it may be subjected as a result of a load applied to the element provided with the connecting device.

In a further embodiment, not illustrated, the bar of the fitment system according to the present invention substantially has a cross-section with a tubular core different from the quadrangular core. In this way it is possible to produce connections between horizontal and/or vertical bars with angles other than a right-angle, for example of 120° with a bar having a cross-section in the shape of an equilateral triangle.

Figure 6 illustrates a portion of another embodiment of a load-bearing bar structure for a fitment system according to the present invention, and in particular a "box" type structure comprising a work island. The structure comprises three or more vertical bars 20 between which are connected two or more horizontal bars 10 so as to produce a structure defining within it a bounded space. The lateral walls of the box are produced by means of a plurality of divider panels 34, the first

ones connected directly to the horizontal bar 10 and the others connected to horizontal bars 12 of reduced height. On the upper end of the vertical bars 20 are connected further horizontal bars 10 which also define the aforesaid space vertically, making it possible to complete the box with upper wall elements or with sliding wall elements.

On the horizontal bars 10 are slidably connected brackets 30 which support an angular work surface 40, and means for the collection and channelling 60, 70 of electric and/or data cables. The particular configuration of the peripheral wall of the bars 10, 20 makes it possible to vary vertically the point of connection of the horizontal bars 10 to the vertical bar 20, consequently varying the height of the work surface 40. Said conformation further makes it possible to move the collection and channelling means 50 along the horizontal bar 10 so as to position them along the work surface 40 according to the requirements of the user and the appliances provided. If it is desired to vary the conformation and/or the position of the work surface 40, it will be sufficient to move the brackets 30 along the horizontal bar 10 so as to create suitable support points for said surface 40.

The divider panels 34 may be present over the full extent of the horizontal bars 10, or only part thereof, so that different embodiments of said upper panels may be provided, having the same function, however. Also, the arrangement of the vertical bar 20 which supports the load-bearing elements 10 is not bound to the configuration illustrated, provided purely by way of example.

Figure 7 illustrates another end of the box structure of Figure 6, in which the lateral wall is produced with a smaller number of divider panels 34 such

as to create an opening towards the rest of the environment. In this case also, as can easily be seen in the drawing, on the horizontal bar 10 is slidably connected a support bracket 30 on which is supported the other end of the work surface 40. The particular configuration of the bracket, shown in the appended drawings, makes it possible to position a work surface 40 in various depth positions with respect to a bar 10, 20: surface completely external to the bar, surface partially covering the bar, surface completely covering the bar.

Figures 8 to 10 illustrate some embodiments of means for the collection and channelling of electric and/or data cables connected to a horizontal bar 10. In particular, Figure 8 illustrates a cover 60 produced, for example but not by way of limitation, in a non-conductive synthetic fabric, such as to constitute an optimum electrical insulation, and transparent, such as to ensure a good view of the cables contained inside. The cover 60 is supported by one or more support means, for example, straps 62, comprising at their ends means for connection, for example hooks 64, to the grooves 105 of the bars 10, 20 so as to allow sliding connection of the cover 60 along the full extent of such elements.

Still in Figure 8, another means for the collection and channelling of electric and/or data cables is illustrated, comprising a connector element 70, for example, but not by way of limitation, L-shaped and produced in non-conductive transparent plastics material, slidably connected to the grooves 105 of the horizontal bar 10. The upper portion 74 of the connector element 70 comprises a plurality of connectors 72 adapted, in use, for connection to electric and/or data cable terminations, while to the lower portion of the connector element 70 a flexible tubular element 76 is connected, for example, but not by way of limitation, insulating and

transparent, for the collection and channelling of cables coming from the floor.

As illustrated in Figure 9, another means for the collection and channelling of electric and/or data cables 50 comprises a housing element, for example a container 52, of substantially parallelepipedal shape, which houses inside it the terminations of electric and/or data cables, such as to render them easily available in proximity to a work surface. The container 52, which may also extend over the full length of the horizontal bar 10, comprises on its upper portion a pair of selectively movable wings 54 which allow the opening of the upper portion itself and facilitate the laying, inspection, maintenance and substitution of said electric and/or data cable terminations. The lower portion of the box 52 comprises one or more projections 56 to allow sliding connection of the box to the grooves 105 of the horizontal bar 10.

Finally, Figure 10 illustrates a particular embodiment of a divider panel 34, in which the front wall 38 is rotatably connected to the upper portion of the panel 34, such as to produce, in use, an opening towards the inner portion 39 of the divider panel 34 where electric and/or data cables are collected and channelled.

Figures 11a and 11b illustrate an embodiment of a fitment system produced by means of the load-bearing bar structure of the present invention. A plurality of load-bearing elements 10, 20 are connected to one another to create a fitment configuration with work surfaces isolated from one another and from the rest of the environment. In particular, a series of horizontal bars 10 forms a main L-shaped structure, elongated on one side to which are orthogonally connected further horizontal bars 10 which delineate contiguous work islands. The horizontal bars 10 are supported, in this embodiment, by

vertical bars 20, comprising foot members 22, 24, and support panel elements 34, and accessory fitment elements 90, for example, suspended containers, movable shelves, paperholders, and/or stationery holders and/or diskette holders or CD holders. All these accessories are hung on the wall by direct engagement with the grooves of the perimetral front portion of the bar 10 and can therefore be freely positioned along the full extent of the bar itself. Separating screens 32 contribute to the sub-division of the work islands. The structure is completed by work surfaces 40, of variable shape and dimensions, supported by support brackets 30 slidably connected to the horizontal bars 10.

From Figure 11a it is clear that the arrangement of the load-bearing elements 10, 20 connected orthogonally to one another is not absolutely bound to the structure of said load-bearing elements, but may be produced by connecting the end of a first load-bearing element 10 equally well along the full horizontal extent of a second load-bearing element 10. Such connection makes it possible to create and modify the configuration of the structure of the load-bearing elements according to any mode, among which those illustrated in the preceding drawings are given solely by way of non-limiting example.

Still with reference to Figure 11a, and as pointed out previously, the fitment system produced by means of the load-bearing structure of the present invention also comprises independent work stations, adapted to be combined with said structure both to benefit from the electric, telephone and data supply system, and to increase the modularity and flexibility of the entire fitment system.

As Figure 12 shows more clearly, an independent work station 91 of a fitment system according to the present invention comprises two vertical bars 20, connected to

one another by means of a horizontal bar 10. To increase the vertical stability of the structure, each vertical bar 20 comprises, in its lower portion, detachably connected foot members 22.

Figure 13 illustrates a detail of a fitment system comprising a load-bearing bar structure according to the present invention and a combination of independent work stations associated with said structure. In particular, said configuration comprises a series of bars 10, 20, and panel elements 34, and on which are mounted divider panels 32. A work island is provided by combining with the load-bearing structure an independent work station 91, comprising three work surfaces 40 supported by a pair of horizontal bars 10. A divider panel 93, also slidably connected to the load-bearing elements 10, 20, allows the separation of several adjoining work islands. Accessory fitment elements such as, for example, brackets 96, shelves and/or containers, connected to the divider panels 32, complete the furnishing of the work island.

In another preferred embodiment of an independent work station, illustrated in Figure 15, the work surface 40 is connected to the horizontal bar 10, supported by a pair of vertical bars 20, by means of a hinge 30 which allows, in use, the rotation of said work surface 40 about the longitudinal axis of the horizontal bar 10.

One of the advantages of such rotation of the work surface 40 is that of reducing the overall space of the independent work station in case of non-use.

In all the examples illustrated so far, the divider panels present may be mounted equally well on any of the load-bearing elements of the fitment structure, so that different embodiments of said divider panels may be provided, having, however, the same function. Also the arrangement of the vertical support bars 20 to the horizontal bars 10 is not absolutely bound to the

configurations illustrated, given purely by way of example.

Figure 14 illustrates a fitment structure of the "office/box" type, in which the dimensions of the vertical bars 20 and of the panelling 34, for example, but not by way of limitation, greater than 2 metres, make it possible to develop monolithic walls. This structure comprises sliding doors, using structurally the same elements of the fitment system described up to now, in which the walls may receive, along the bars 10, 20, in any position, the brackets 30 for the support of work surfaces 40. The upper structural network may, instead, receive dedicated lighting and ceiling solutions.

Finally, a further embodiment of the present invention comprises vertical bars 20 and horizontal bars 10 sufficient to develop a load-bearing structure adapted to create multifunctional environment and cubicle/cupboard partitions. Said structure comprises solutions for separating the environments by means of light panelling, slidable within the grooves of the peripheral walls of the bars 10, 20. The structural network cited may further comprise dedicated lighting and/or ceiling solutions.

While the principal of the invention remains the same, the embodiments and the details of production may of course vary widely without thereby departing from the scope of the present invention.

C L A I M S

1. A load-bearing bar element for a fitment system, elongate in shape along a preferential direction, comprising connection means (105, 106, 109) for connection, in use, to further load-bearing elements and/or to fitment elements, characterised in that it comprises a plurality of appendages (102, 103) which, as a whole, define peripheral walls (104), interrupted by a plurality of parallel longitudinal grooves (105).

2. A load-bearing element according to claim 1, characterised in that it comprises lateral appendages (102) and corner appendages (103).

3. A load-bearing element according to claim 2, characterised in that each groove (105) comprises a base wall (106) and two lateral walls (107) which, in proximity to the opening (108) of the groove (105) at the walls (104), have a pair of projections (109).

4. A load-bearing element according to claim 3, characterised in that the grooves (105) are preferably two or three in number per side.

5. A load-bearing element according to claim 4, characterised in that said load-bearing element is in the shape of a bar (10, 20), having substantially a cross-section with a quadrangular tubular core.

6. A load-bearing element according to claim 4, characterised in that said load-bearing element is in the shape of a bar (10, 20), having substantially a cross-section with a triangular tubular core.

7. A coupling device for a fitment system, characterised in that it is housed in a load-bearing element for a fitment structure according to any one of the preceding claims.

8. A coupling device according to claim 7, characterised in that it comprises a containment body

(110) inside which are housed selective engagement means (113).

9. A coupling device according to claim 8, characterised in that the containment body (110) comprises an end cavity (111) having two opposed walls (112) inclined so as to diverge towards the end of the containment body (110) with respect to each other.

10. A coupling device according to claim 9, characterised in that the selective engagement means comprise two jaws (113) pivotally articulated in proximity to the base of the cavity (111) and each terminating in an elongate tooth (115) intended, in use, to hook onto a respective projection (109) of two grooves (105) of a load-bearing element (10, 20).

11. A coupling device according to claim 10, characterised in that each jaw (113) is maintained normally alongside a respective lateral wall (112) of the cavity (111) by resilient means.

12. A coupling device according to claim 11, characterised in that, interposed between the pair of jaws (113), there is interposed a clamping device.

13. A coupling device according to claim 12, characterised in that in an opening (120) of the clamping device there is engaged an operating member (121), partially accessible through an opening (123) provided in the containment body (110).

14. A coupling device according to claim 13, characterised in that it comprises a centring element (124), pre-arranged in a central position with respect to the two jaws (113).

15. A coupling device according to any one of claims 7 to 14, characterised in that it is connected to a support member (30) of a fitment element (40).

16. A load-bearing bar structure for a fitment system comprising a plurality of load-bearing elements

(10, 20) and coupling devices (110, 113, 115) according to any one of the preceding claims, characterised in that two or more of said load-bearing elements (10, 20), elongated in a preferential direction, are mutually connected at any point along their said preferential direction.

17. A load-bearing structure according to claim 16, characterised in that it comprises support members (30) for supporting fitment elements (40) slidably connected to said load-bearing elements (10, 20) by means of said coupling devices.

18. A load-bearing structure according to claim 17, characterised in that it comprises panel elements (32, 34).

19. A load-bearing structure according to claim 18, characterised in that said fitment elements (40) and panel elements (32, 34, 36) are slidably connected to the load-bearing elements (10, 20) such as to be able to freely modify, in use, the positioning and/or the number and/or the size of one or more work stations (20).

20. A load-bearing structure according to claim 19, characterised in that it comprises a plurality of load-bearing elements (10, 20) and of panel elements (32, 34, 36) defining a closed space for receiving, in use, one or more work stations.

21. A fitment system comprising a load-bearing bar structure for a fitment system according to any one of claims 16 to 20, characterised in that it further comprises independent work stations that can be selectively brought, in use, alongside said fitment structure to modify the configuration of the fitment system itself.

22. A fitment system according to claim 31, characterised in that said independent work stations comprise at least one work surface (40) supported by two

or more load-bearing elements (10, 20), comprising foot members (22, 24).

FIG.1

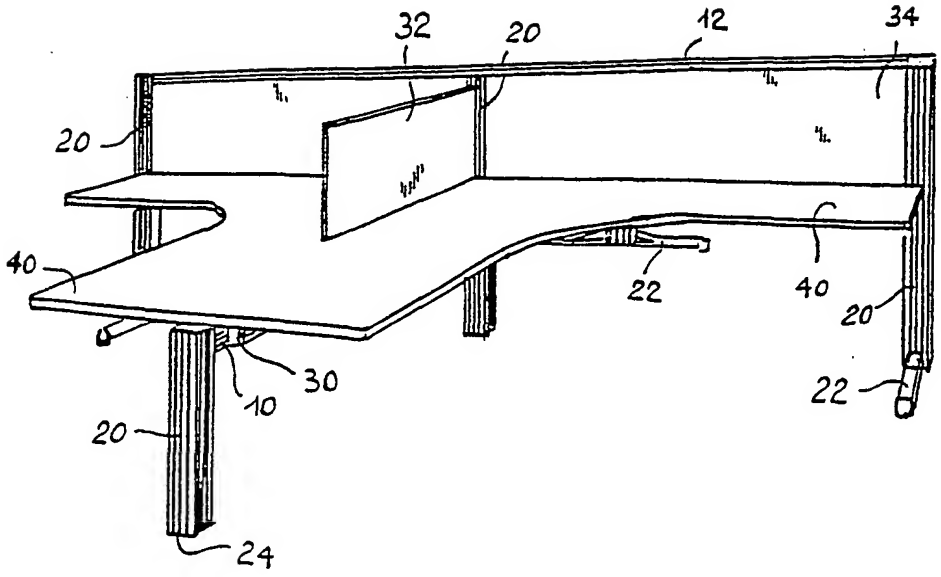

FIG. 2a

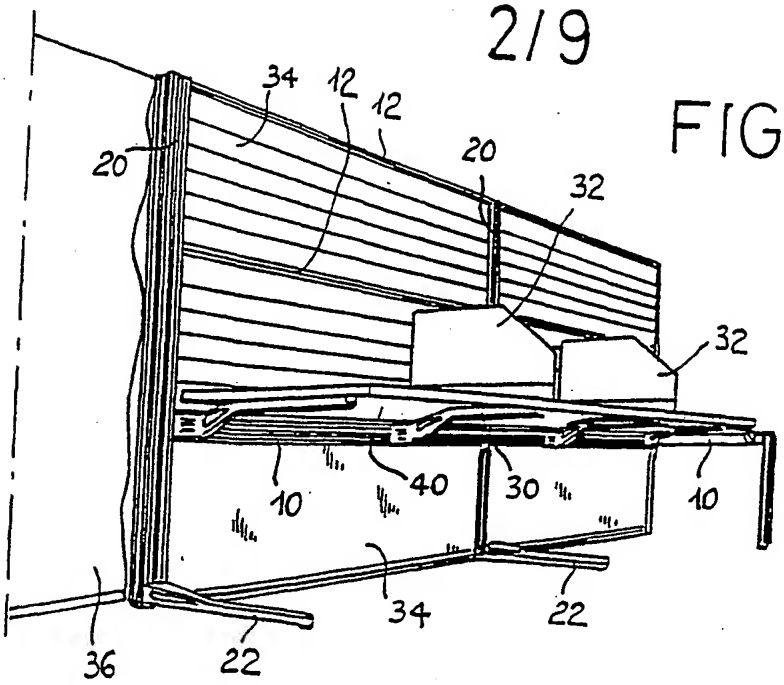

FIG. 2b

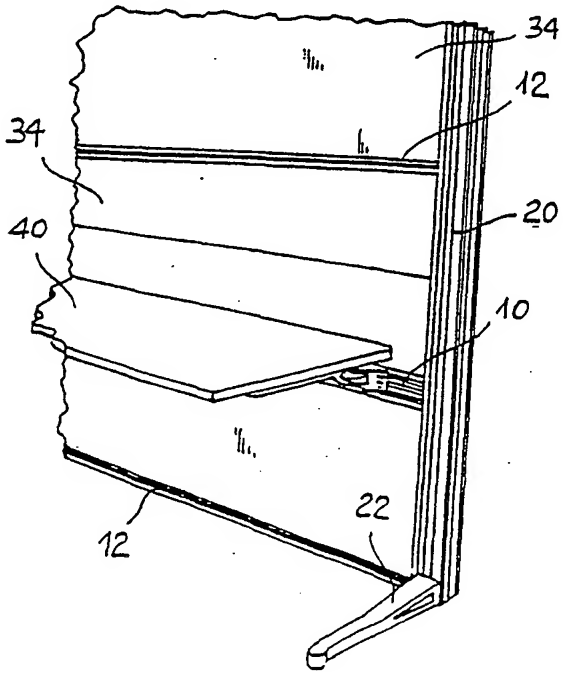

FIG. 3

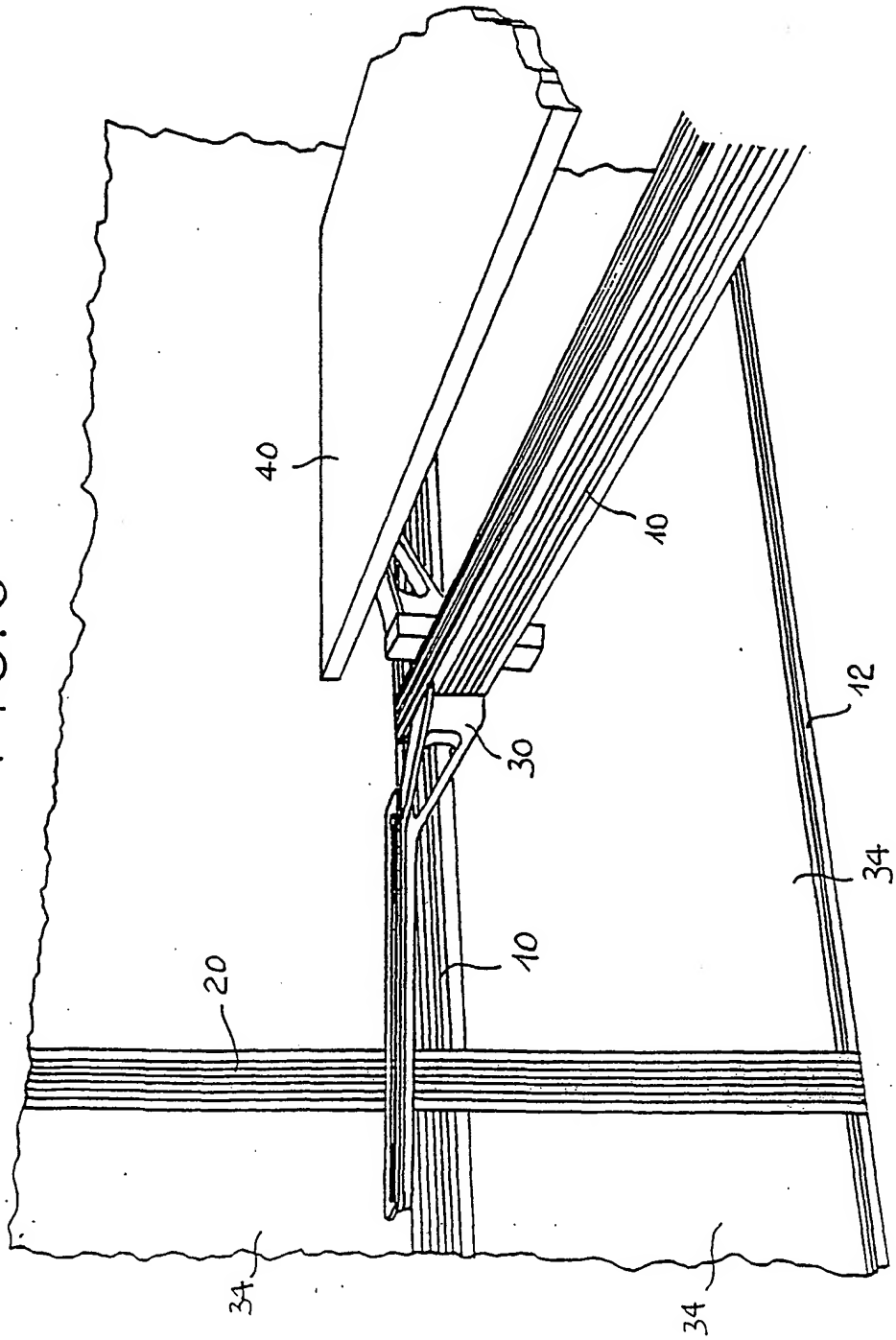

FIG. 4

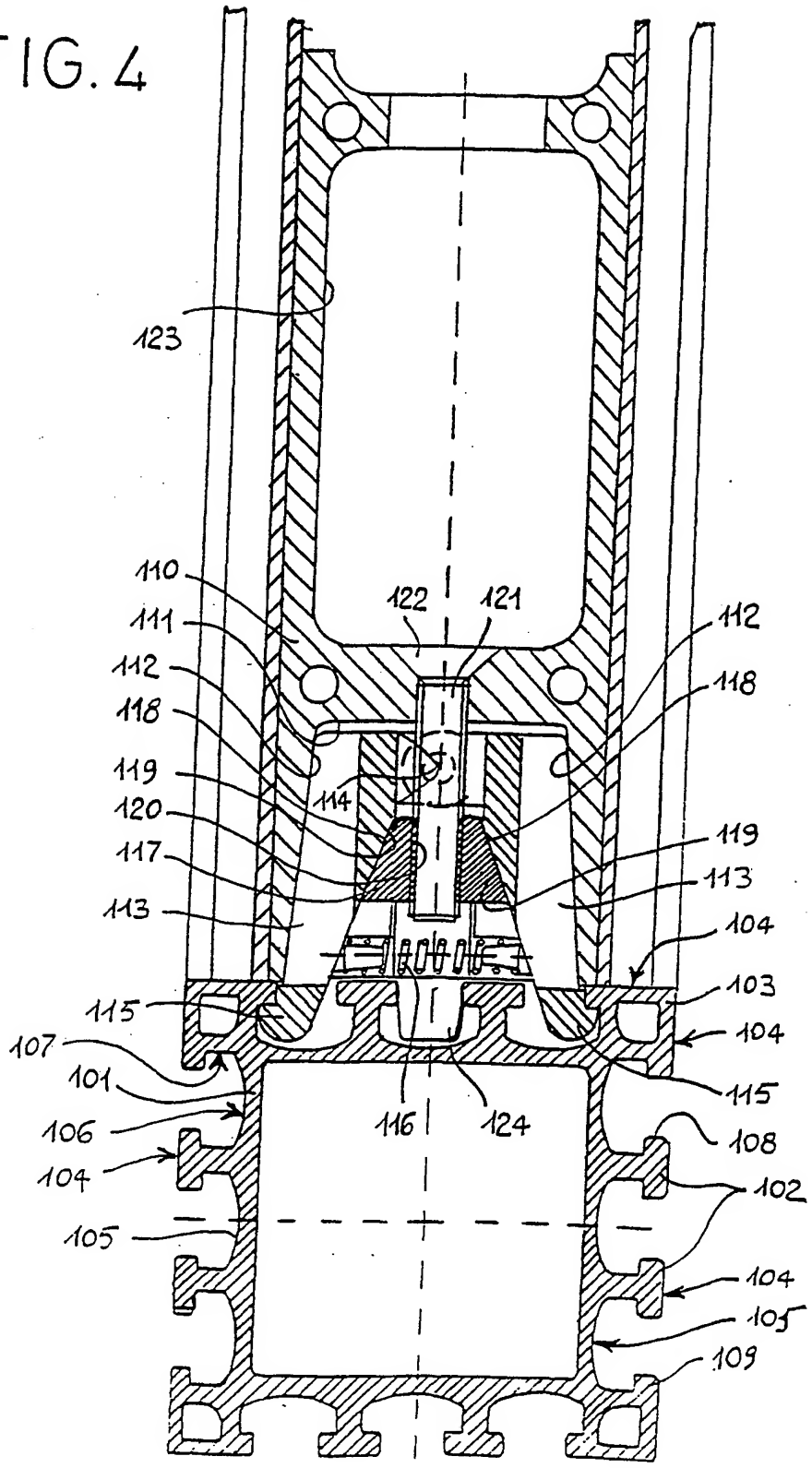
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FIG.5

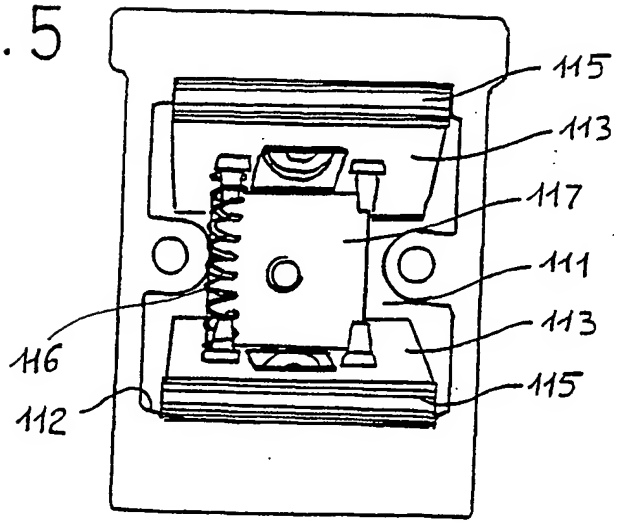
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FIG.6

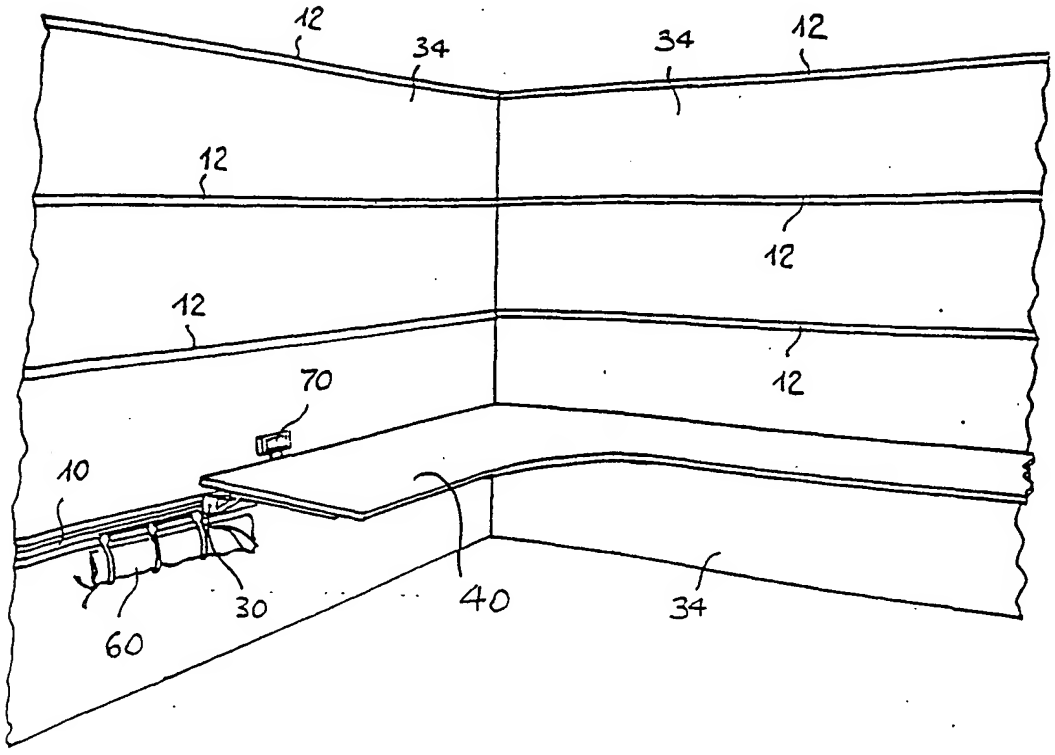
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FIG.7

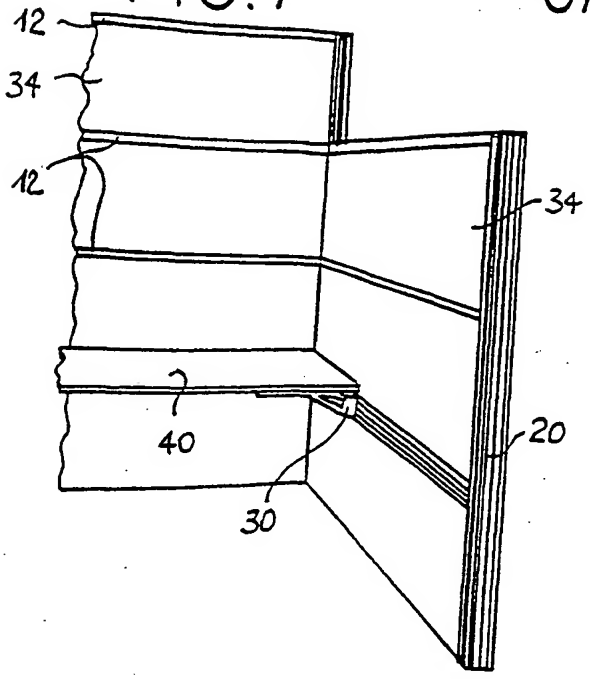


FIG.10

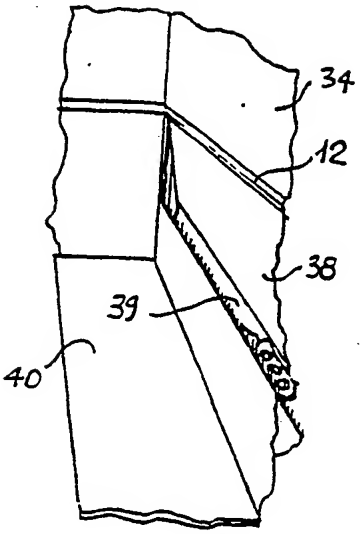


FIG.9

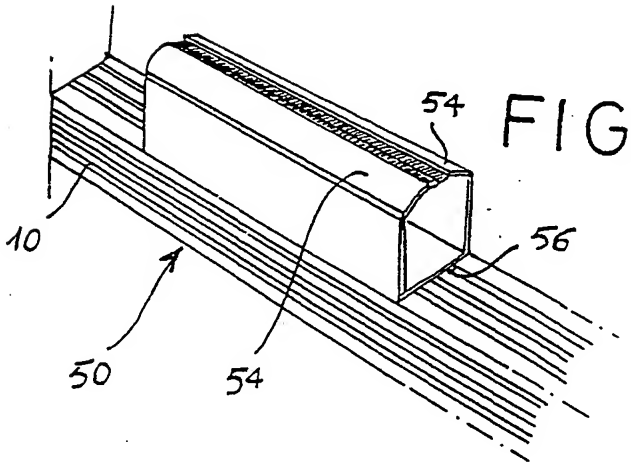


FIG.8

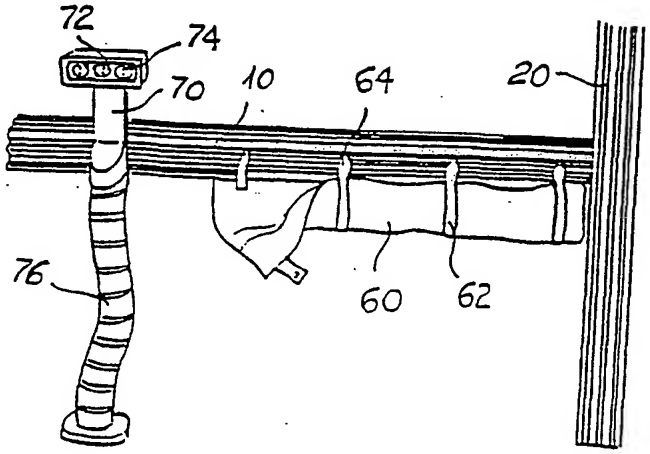


FIG.11a

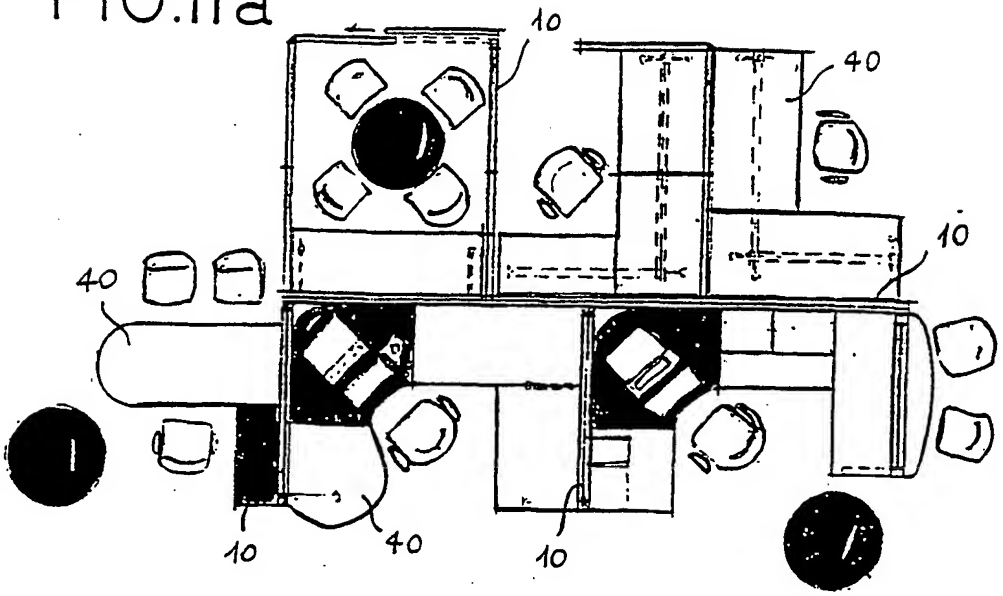


FIG.11b

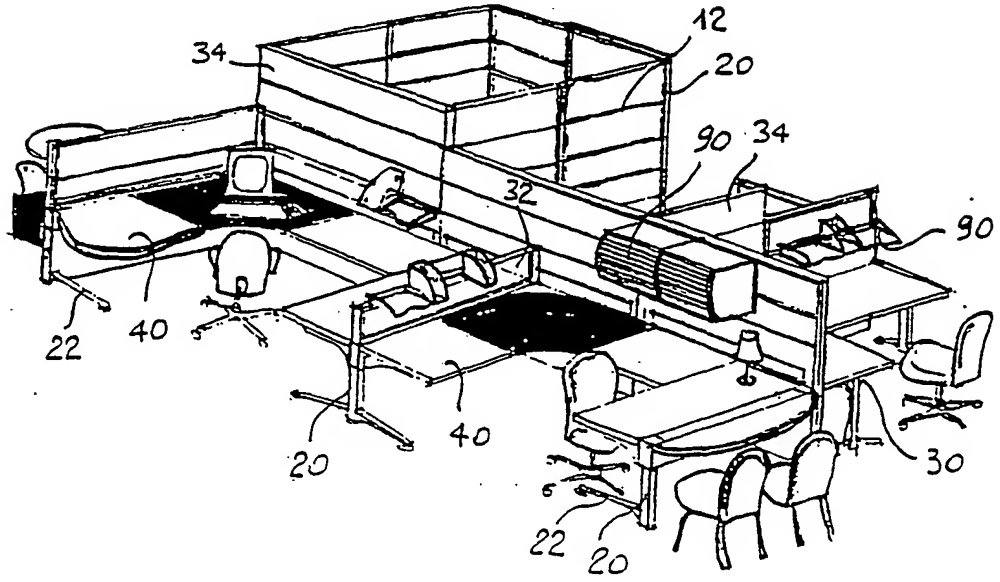


FIG.12

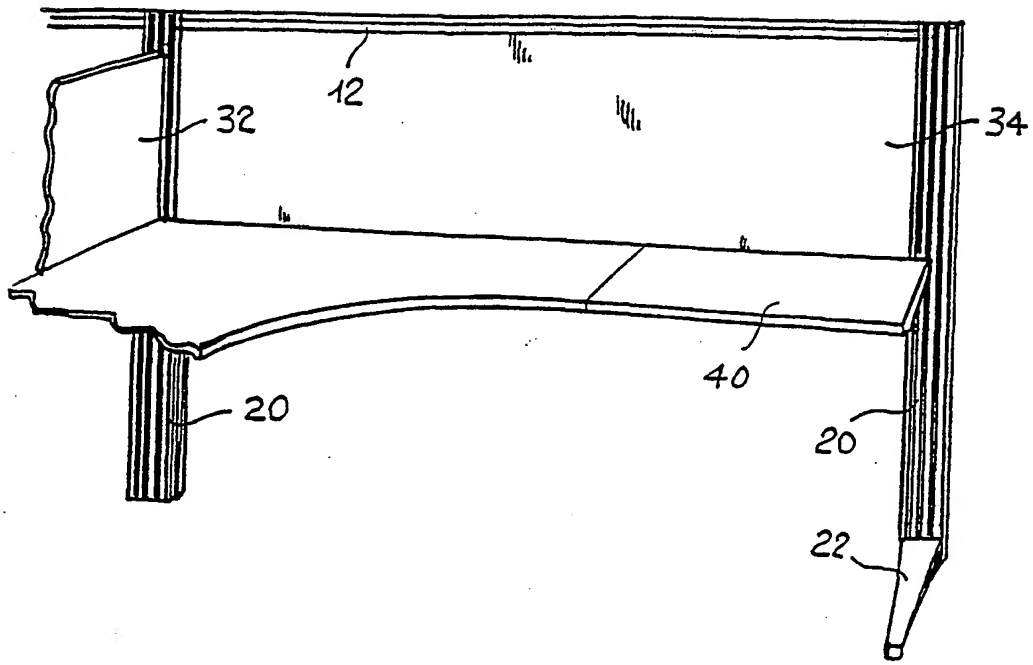


FIG.13

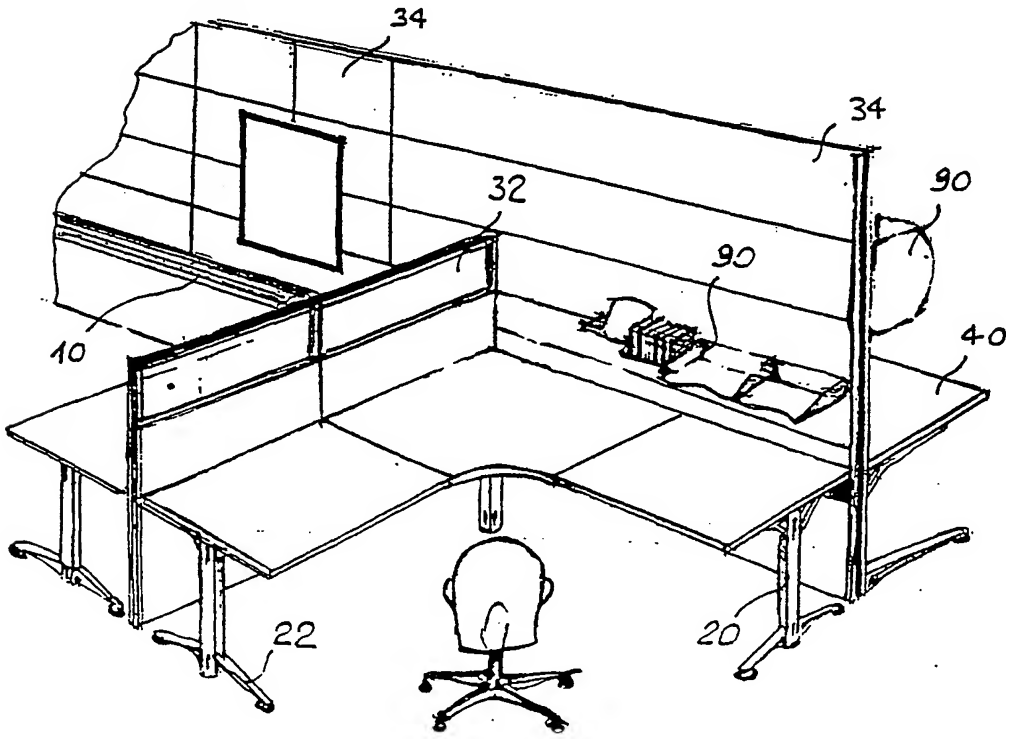
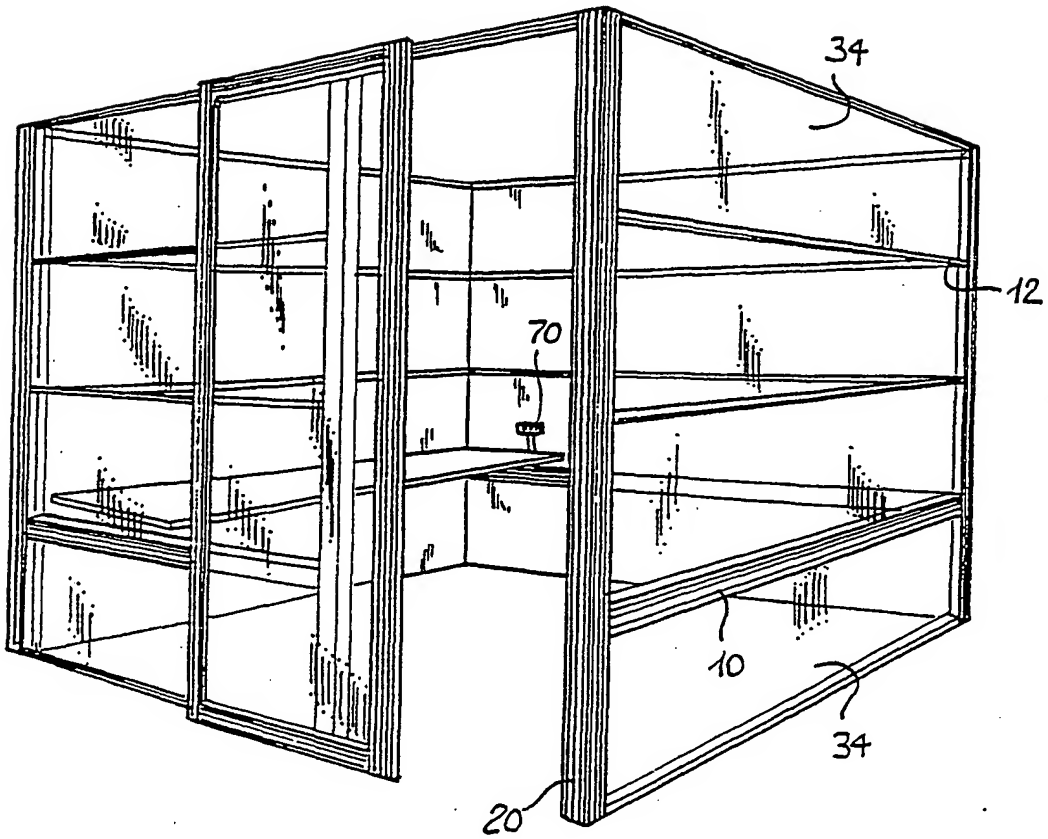


FIG.14



INTERNATIONAL SEARCH REPORT

ational Application No
CT/IB 01/01958

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16B12/32 F16B7/04 A47B83/00 A47B96/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16B A47B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 35 40 398 A (HANS JOSEF KITZ MASCHINENBAU) 21 May 1987 (1987-05-21) the whole document	1-5
Y		6-9,15, 16
Y	DE 21 60 513 A (WALLOCH WILLFRIED H L) 14 June 1973 (1973-06-14) figures 4V,4	6
Y	EP 0 481 357 A (ROSE ELEKTROTECH GMBH) 22 April 1992 (1992-04-22) column 2, line 18 -column 4, line 44 figures 2,3	7-9,15, 16
A	US 5 657 604 A (MALOTT JOHN S) 19 August 1997 (1997-08-19) abstract; figures	10-14

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
26 February 2002	06/03/2002

Name and mailing address of the ISA	Authorized officer
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INTERNATIONAL SEARCH REPORT

Int[redacted]al Application No
PC[redacted] 01/01958

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 458 264 A (C O M S COOP A R L) 27 November 1991 (1991-11-27) abstract; figures 3-7	17-22

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INTERNATIONAL SEARCH REPORT

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PCT/IB 01/01958

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